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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/980,054A

DATE: 12/04/2002 P.6

TIME: 10:27:05

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      9 <130> FILE REFERENCE: 146.1374
     11 <140> CURRENT APPLICATION NUMBER: 09/980,054A
C--> 12 <141> CURRENT FILING DATE: 2002-04-14
     14 <150> PRIOR APPLICATION NUMBER: FR 9907250
     15 <151> PRIOR FILING DATE: 1999-06-09
     17 <150> PRIOR APPLICATION NUMBER: PCT/FR00/01567
     18 <151> PRIOR FILING DATE: 2000-06-08
     20 <160> NUMBER OF SEQ ID NOS: 32
     22 <170> SOFTWARE: PatentIn Ver. 2.1
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     55 Tyr Asp Arg Asn Ile Ile Thr Lys Lys Pro His Glu Ile Asn Leu Ser
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     56 65
     58 tcq tta tca ttt ttq ttt tqt qag att att agt tgg gca cac tct aat
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62 tcc aaa qqc att caa gat tta gaa aat cgt tta aac gga tta ggt tat

336

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80	Glu	Lys	Ser	GIN	165	Leu	Pro	ASII	GIU	170		_ 11	.e \	/aı	GIU	175	val	-
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11	l Le	u Th	r Il	e As	n As	- p Va	l Se	r Ly	s Se	er Gl	Ly P	he (Gly	Туз	r As	n Pr	o S	er
11:	2		_	2		-	m)	T 3		:5	C	1 (~ ~ ~	Cor		0 Va	1 Т.	211
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12		n Tl	e Gl	10 v Gl		α Τν	r I.e	u Gl	10 u L∈		vs J	vs :	Ile	Arc			y P	he
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			Pro	Phe	Trn	Luc			Dho	C1,,	Tuc		7.] ~	7\	01	T -	
128	145	O _T y	110	1110	тър	150		116	rne	СТУ	ьуs 155		AId	ASII	GIU		
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130	Olu	цуз	Ser	GIII	165		PIO	ASII	GIU			тте	val	GLu		Val	
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DATE: 12/04/2002 PATENT APPLICATION: US/09/980,054A TIME: 10:27:05

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Output Set: N:\CRF4\12032002\I980054A.raw

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•	188			115					120					125				
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	191	Gln	Asn	Asp	Asn	Leu	Leu	Ser	Lys	Glu	Glu	Arg	Asp	Tyr	Ile	His	Lys	
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2	203	Met	Ile	Val	Glu	Pro	Asp	Leu	Asp	Gln	Pro	Val	Phe	Ile	Lys	Cys	Thr	
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2	207	Leu	Glu	Val	Pro	Ile	Leu	Leu	Asp	Tyr	Asp	Gly	Ala	Thr	Glu	Ile	Asp	
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2	211	Leu	Glu	Leu	Ile	Lys	Lys	Gly	Val	Tyr	Val	Val	Lys	Tyr	Ser	Leu	Val	
2	212		210					215					220					
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2	215	Lys	Arg	Tyr	Ile	Asp	Ile	Gly	Asp	Val	Val	Leu	Ile					
		225					230					235						
			D> SE															
			l> LH			36												
			2> T															
							dida	albi	icans	5								
)> SE					_					_					
			Asp	Ile	Asp	Asp	Ile	Leu	Lys	Glu		Glu	Glu	Ser	Ser		Asp	
	226	1	_	~ 7	_	5	_			_	10					15		
		Glu	Lys	lle		Ser	Lys	Thr	Ser		Ile	Asn	Leu	Tyr		Asp	Leu	
	228	-	_		20	- 1	_		_	25		_			30			
		Leu	Arg		Met	lle	Asn	Glu	-	Met	Ala	Pro	Glu		Leu	Pro	Tyr	
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		Lys		Asp	Leu	Met	Ser		Val	Leu	Thr	Met		Ser	Asn	Gln	Gln	
	232	01	50	-	-	6 1	0	55	0.1	-	0.3	_	60	_	~ 1	_	~	
			Tyr	Leu	Leu	GLu	Ser	Hls	GLu	Tyr	GLY		Met	Asn	GLY	Asp		
	234	65	77-1	τ	C	C 1	70			т.		75		- 3	- 1	61	80	
		СΤΆ	val	Leu	ser		Asp	Pne	гàг	Leu		Leu	Met	TTE	тте		Thr	
	236	7\	т	C1	7\	85	7	m	- 1 -	17 - 1	90	+		- 1		95		
		ASP	Leu	GIU		Leu	Asn	Tyr	ше		Arg	Leu	Tyr	ile		Thr	Arg	
	238				100		.	nt -	mt ·	105	D.L	m.	T 7	70 -	110	C .	0 -	
		T ~	C	T	T	7\ ~			Trn r	110	Pna	1.77	110	nen	(F 17	Sor		
_	39	Leu	Ser	Lys	Leu	Asn	ьуs	1116		110	THE	1 y 1	110		GIU	261	sei	
	239 240			115					120					125				
2	239 240 241		Asn	115			Lys	Ser	120				Asp	125				
2	239 240 241 242	Gln	Asn 130	115 Asp	Asn	Leu	Leu	Ser 135	120 Lys	Glu	Glu	Arg	Asp 140	125 Tyr	Ile	His	Lys	
2 2 2	239 240 241 242 243	Gln Tyr	Asn 130	115 Asp	Asn	Leu	Leu Thr	Ser 135	120 Lys	Glu	Glu	Arg Asn	Asp 140	125 Tyr	Ile	His	Lys Lys	
2 2 2	239 240 241 242 243	Gln	Asn 130	115 Asp	Asn	Leu	Leu	Ser 135	120 Lys	Glu	Glu	Arg	Asp 140	125 Tyr	Ile	His	Lys	

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Output Set: N:\CRF4\12032002\1980054A.raw

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248										Gln					Lys			
250									Asp					Thr				
252													Lys					
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269 Met Asp Phe Ile Gly Glu Ile Ile Glu III III III III III III III III III I				0.000	TOD.	E			- + -	~ ~ ~ ~	cat	a a c	1 202	aaa	aca	cct	aaa	48
270	268 a	atg	gat Asp	ttc Phe	ata Tle	gga Glv	gag Glu	att Ile	Ile	gaç Gli	His	Gli	ı Thr	Glu	Ala	Pro	Lys	
273 Glu Pro Thr Pro Lys Pro Thr 11e Gly 25 30 274 20 275 35 30 276 tta aaa gaa aag aaa gtc tca aga tgg agg caa aag caa caa cag gaa 144 277 Leu Lys Glu Lys Lys Val Ser Arg Trp Arg Gln Lys Gln Gln Gln Glu 278 35 40 280 cag agc aca act tcc cca aaa act act gaa atc cgt tca gag gct tcc 281 Gln Ser Thr Thr Ser Pro Lys Thr Thr Glu Ile Arg Ser Glu Ala Ser 282 50 284 aaa att cac caa gaa aat atc gag aag atg gct caa atg tca gag gaa 285 Lys Ile His Gln Glu Asn Ile Glu Lys Met Ala Gln Met Ser Glu Glu 286 65 70 288 gag att ttg caa gag cgt gag gag tta cta aag ggt tta gat cct aaa 289 Glu Ile Leu Gln Glu Arg Glu Glu Leu Leu Lys Gly Leu Asp Pro Lys 290 85 292 tta att gaa agt ttg gt aga tcc aag aaa agg gaa aca ac		_				L					1. U							96
274	272 (273 (gaa Glu	cca Pro	acc Thr	cca Pro	aaa Lys	Pro	Thr	· Ile	Gly	, Gly	Phe	e Pro	Glu			Lys	
277 Leu Lys Glu Lys Lys Val Ser Arg 11p Arg 31	274				20		~+ c	. +	201	z.	n ago	r caa	a aad	g caa	caa	cag	gaa	144
278	276 : 277 :	tta Leu	aaa Lys	gaa Glu	aag Lys	laaa Lys	. y.c	. Ser	AIG	3 111	Arg	Gl:	n Lys	0	-	n Gln	Glu	
281 Gln Ser Thr Thr Ser Pro Lys Thr Thr Glu Fall Fall Fall Glu Fall Fall Fall Fall Fall Fall Fall Fa	278			35					41	ا ک	t daa	at	c cat	t tca	a gad	g gct	tcc	192
282	280	cag Gln	Ser	Thr	Thr	Ser	Pro	э газ	2 1.117	r Th	r Glu	ıIl	C 111.	9 20-	c Gli	ı Ala	Ser	
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286 65 288 gag att ttg caa gag cgt gag gag tta cta aag ggt tta gat cct aaa 288 289 Glu Ile Leu Gln Glu Arg Glu Glu Leu Leu Lys Gly Leu Asp Pro Lys 290 85 292 tta att gaa agt ttg att ggt aga tcc aag aaa agg gaa gca aca gac 293 Leu Ile Glu Ser Leu Ile Gly Arg Ser Lys Lys Arg Glu Ala Thr Asp 294 100 296 cat gaa cac aat gga cat gct cat gaa cat gca gag gga tac cat gga 297 His Glu His Asn Gly His Ala His Glu His Ala Glu Gly Tyr His Gly 298 115 300 tgg att gga tca atg aaa act tct gaa gga tta aca gat tta tct caa 301 Trp Ile Gly Ser Met Lys Thr Ser Glu Gly Leu Thr Asp Leu Ser Gln 302 130 304 tta gat aag gaa gat gtg gac cgt gca ttg ggt ata agt tca tta tcc 305 Leu Asp Lys Glu Asp Arg Ala Leu Gly Ile Ser Ser Leu Ser 150 150 288 288 288 288 288 288 288 2	285	Lys	Ile	His	Glr	ı Glu	ı Ası	J TT6	e Ğl	u Ly	s Met	LAI	a OI	n Me	t Se:	r Gli	ı Glu 80	
289 Glu Ile Leu Gln Glu Arg Glu Glu Leu Leu Lys Gly 290 290 85 292 tta att gaa agt ttg att ggt aga tcc aag aaa agg gaa gca aca gac 293 Leu Ile Glu Ser Leu Ile Gly Arg Ser Lys Lys Arg Glu Ala Thr Asp 294 296 cat gaa cac aat gga cat gct cat gaa cat gca gag gga tac cat gga 297 His Glu His Asn Gly His Ala His Glu His Ala Glu Gly Tyr His Gly 298 298 299 290 290 95 336 336 292 tta att gaa aga gga tac cat gaa gag gga tac cat gga 384 297 His Glu His Asn Gly His Ala His Glu His Ala Glu Gly Tyr His Gly 298 298 298 200 298 299 290 200 201 200 201 200 201 201 201 202 203 204 205 206 207 208 208 209 208 208 208 209 208 208 208 208 208 208 208 208 208 208	286	65					/() = ~~.	~ ~=	a tt	a cta	a aa	a aa	t tt	a ga	t cct	aaa	288
290 292 tta att gaa agt ttg att ggt aga tcc aag aaa agg gaa gca aca gac 293 Leu Ile Glu Ser Leu Ile Gly Arg Ser Lys Lys Arg Glu Ala Thr Asp 294 296 cat gaa cac aat gga cat gct cat gaa cat gca gag gga tac cat gga 297 His Glu His Asn Gly His Ala His Glu His Ala Glu Gly Tyr His Gly 298 298 299 290 291 291 290 291 291 292 293 294 295 296 297 297 298 298 298 298 298 298 298 298 298 298	289	Glu	Ile	Leu	Glr	n Gli	Ar(g Ğl	u Gl	u Le	u Le	uлy	s Gl	y Le	u As	p Pro 9!	o ras	
293 Leu Ile Glu Ser Leu Ile Gly Arg Ser Lys		tta	att	gaa	. agt			t gg	t ag	a tc	c aa	a aa	a ag	g ga	a gc	a aca	a gac	336
294 296 cat gaa cac aat gga cat gct cat gaa cat gca gag gga tac cat gga 297 His Glu His Asn Gly His Ala His Glu His Ala Glu Gly Tyr His Gly 298 115 300 tgg att gga tca atg aaa act tct gaa gga tta aca gat tta tct caa 301 Trp Ile Gly Ser Met Lys Thr Ser Glu Gly Leu Thr Asp Leu Ser Gln 302 130 304 tta gat aag gaa gat gtg gac cgt gca ttg ggt ata agt tca tta tcc 305 Leu Asp Lys Glu Asp Val Asp Arg Ala Leu Gly Ile Ser Ser Leu Ser 315 316 317 318 318 318 318 318 318 319 319 310 310 310 310 311 310 310 310 310 310	293	Leu	Ile	Glu	se:	r Le	u Il	e Gl	y Ar	g se	г. г.	s Ly	s Ar	g Gl	u Al 11	a Th: O	r Asp	
297 His Glu His Asn Gly His Ala His Glu His Ala His Glu His Ala Gly His Ala Gly Leu Thr Asp Leu Ser Gln 300 tgg att gga tca atg aaa act tct gaa gga tta aca gat tta tct caa 432 301 Trp Ile Gly Ser Met Lys Thr Ser Glu Gly Leu Thr Asp Leu Ser Gln 302 130 135 140 140 304 tta gat aag gaa gat gtg gac cgt gca ttg ggt ata agt tca tta tcc 480 305 Leu Asp Lys Glu Asp Val Asp Arg Ala Leu Gly Ile Ser Ser Leu Ser 155 160		cat	gaa	a cac			a ca	t gc	t ca	t da	а са	t go	a ga	g gg	a ta	c ca	t gga	384
300 tgg att gga tca atg aaa act tct gaa gga tta aca gat tta tct caa 432 301 Trp Ile Gly Ser Met Lys Thr Ser Glu Gly Leu Thr Asp Leu Ser Gln 302 130 135 140 304 tta gat aag gaa gat gtg gac cgt gca ttg ggt ata agt tca tta tcc 480 305 Leu Asp Lys Glu Asp Val Asp Arg Ala Leu Gly Ile Ser Ser Leu Ser 305 Leu Asp Lys Glu Asp Val Asp Arg Ala Leu Gly Ile Ser Ser Leu Ser	297	His	Glu	ı His	s As:	n Gl	у ні	s Al	а ні 12	iU Bi GT	u nı	5 A1	La 01	12	5		_	
301 Trp Ile Gly Ser Met Lys Thr Ser Glu Gly Hed III 187 302 130 135 140 304 tta gat aag gaa gat gtg gac cgt gca ttg ggt ata agt tca tta tcc 480 305 Leu Asp Lys Glu Asp Val Asp Arg Ala Leu Gly Ile Ser Ser Leu Ser 305 Leu Asp Lys Glu Asp Val Asp Arg Ala Leu Gly Ile Ser Ser Leu Ser		taa	att			a at	g aa	a ac	+ + ~	+ ~=	ıa gg	a tt	a ac	a ga	t tt	a tc	t caa	432
304 tta gat aag gaa gat gtg gac cgt gca ttg ggt ata agt tca tta tcc 480 304 tta gat aag gaa gat gtg gac cgt gca ttg ggt ata agt tca tta tcc 480 305 Leu Asp Lys Glu Asp Val Asp Arg Ala Leu Gly Ile Ser Ser Leu Ser 150	301	Trp	Ile	e Gly	y Se	r Me	t Ly	S TN	r 5e	er G1	.u Gi	уу	14	10	F			
305 Leu Asp Lys Glu Asp Val Asp Arg Ara Leu Gry 116 551 160		tta			g ga	a ga	t gt	~ ~ ~	c cc	gt go	a tt	g g	gt at	a ag	it to	a tt	a tcc	
	305	Leu	Ası	o Ly:	s Gl	u As	p Va	.I As	sp Ar	.g A.	ra ne	1!	55		_		160	
308 tha tot gad our gag ggs ggs sign and sign sign and sign sign sign sign sign sign sign sign	306 308	145 tta	tci	t ga	а сс	t ga	g gg.	it gg	jc aç	gt aa	at ac			aa gt	c go	ct tt	c gac	528

RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/09/980,054A

DATE: 12/04/2002 TIME: 10:27:06

Input Set : A:\19624051.app

Output Set: N:\CRF4\12032002\I980054A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:21; N Pos. 18

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/980,054A

DATE: 12/04/2002 TIME: 10:27:06

Input Set : A:\19624051.app

Output Set: N:\CRF4\12032002\I980054A.raw

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:1308 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0